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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,425

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Dai Tanaka

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EXAMINER

MUSHAMBO, MARTIN

ART UNIT

PAPER NUMBER

2625

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,425	Applicant(s) TANAKA ET AL.	
	Examiner MARTIN MUSHAMBO	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/28/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-15 are pending.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshimura et al. (US 2002/0171868 A1) hereinafter referred to as Yoshimura.

Regarding claim 1, Yoshimura discloses a print buffer unit temporally storing print data to be printed on a printer (**Yoshimura, Fig.2, Abstract lines 1-3, [0071] lines 1-3**), comprising: a data-storing section storing the print data (**Yoshimura, Fig.2 element 12**); a print-image creating section creating a print image from the print data (**Yoshimura, Fig.9 element 107, [0151] lines 1-5**); and a print-image displaying section displaying the print image (**Yoshimura, Fig.10, [0120] lines 3-5**).

Regarding claim 15, Yoshimura discloses a print system comprising:

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a print buffer unit, printable data being input to the print buffer unit (**Yoshimura, Fig.2 print server is the buffer unit**); and a printer (**Yoshimura, Fig.8 elements 3-1 to 3-2**), wherein the print buffer unit creates a print image from the data and displays the print image (**Yoshimura, Fig.9 element 107, [0151] lines 1-5, Fig.10, [0120] lines 3-5**); the print buffer unit sends the data to the printer (**Yoshimura, Fig.9 element 104, [0114] lines 4-7**), the data being modified so as to change the print image (**Yoshimura, [0116] lines 1-12**; and the printer prints on the basis of the data (**Yoshimura, [0068] lines 4-5**).

Regarding claim 2 dependent on claim 1, Yoshimura discloses the print buffer unit according to Claim i, further comprising: a print-data modifying section modifying the print data (**Yoshimura, Fig.10 element 123, Fig.14 element 151, [0120] lines 3-5**).

Regarding claim 3 dependent on claim 2, Yoshimura discloses the print buffer unit, wherein the print-data modifying section comprises at least one of print-sequence changing means for changing the sequence of printing of the print data, print-data duplicating means for duplicating the print data, and print-data deleting means for deleting the print data (**Yoshimura, [0076] lines 1-14, [0144] lines 1-6**).

Regarding claim 4 dependent on claim 2, Yoshimura discloses the print buffer unit, wherein the print-data modifying section comprises print-image modifying means

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for modifying the print image (**Yoshimura, [0076] lines 1-3 user interface is modifying means**).

Regarding claim 5 dependent on claim, Yoshimura discloses the print buffer unit, wherein the print-data modifying section further comprises print- image modifying means for modifying the print image (**Yoshimura, [0076] lines 1-3 user interface is modifying means**).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura, in view of Wang (US 2004/0243826).

Regarding claim 6 dependent on claim 1, Yoshimura does not disclose “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” However, Wang discloses “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” (**Wang, [0019] lines 1-12 maintaining means saving data or preventing data loss**) It would have been obvious

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to one ordinary skilled in the art at the time of the invention to combine the teachings of Yoshimura with the teachings of Wang since they are both analogous in computer data processing related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Yoshimura with the teachings of Wang in order to provide data protection during abnormal power off time. **(Wang, [0005] lines 6-9)**

Regarding claim 7 dependent on claim 2, Yoshimura does not disclose “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” However, Wang discloses “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” **(Wang, [0019] lines 1-12 maintaining means saving data or preventing data loss)** It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Yoshimura with the teachings of Wang since they are both analogous in computer data processing related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Yoshimura with the teachings of Wang in order to provide data protection during abnormal power off time. **(Wang, [0005] lines 6-9)**

Regarding claim 8 dependent on claim 3, Yoshimura does not disclose “The print buffer unit, wherein the print-image displaying section is capable of maintaining

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displayed content even after power supply is cut.” However, Wang discloses “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” **(Wang, [0019] lines 1-12**

maintaining means saving data or preventing data loss) It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Yoshimura with the teachings of Wang since they are both analogous in computer data processing related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Yoshimura with the teachings of Wang in order to provide data protection during abnormal power off time. **(Wang, [0005] lines 6-9)**

Regarding claim 9 dependent on claim 4, Yoshimura does not disclose “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” However, Wang discloses “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” **(Wang, [0019] lines 1-12**

maintaining means saving data or preventing data loss) It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Yoshimura with the teachings of Wang since they are both analogous in computer data processing related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Yoshimura with the teachings of

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Wang in order to provide data protection during abnormal power off time. **(Wang, [0005] lines 6-9).**

Regarding claim 10 dependent on claim 5, Yoshimura does not disclose “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” However, Wang discloses “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” **(Wang, [0019] lines 1-12 maintaining means saving data or preventing data loss)** It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Yoshimura with the teachings of Wang since they are both analogous in computer data processing related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Yoshimura with the teachings of Wang in order to provide data protection during abnormal power off time. **(Wang, [0005] lines 6-9).**

7. Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura, in view of Tyler et al. (US 5638498) hereinafter referred to as Tyler.

Regarding claim 11 dependent on claim 1, Yoshimura does not disclose “The print buffer unit, wherein the print-image creating section creates the print image split into at least two parts; and the print-image displaying section merges the split parts of

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the print image into one and displays the print image.” However, Tyler discloses “The print buffer unit, wherein the print-image creating section creates the print image split into at least two parts; and the print-image displaying section merges the split parts of the print image into one and displays the print image.” **(Tyler, col.9 lines 44-53)** It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Yoshimura with the teachings of Tyler since they are both analogous in print control related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Yoshimura with the teachings of Tyler in order to lower memory requirement for displaying data. **(Tyler, col.2 lines 8-20).**

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura and Wang, in view of Tyler et al. (US 5638498) hereinafter referred to as Tyler.

Regarding claim 12 dependent on claim 10, Yoshimura as modified with Wang does not disclose “The print buffer unit wherein the print-image creating section creates the print image split into at least two parts; and the print-image displaying section merges the split parts of the print image into one and displays the print image.” However, Tyler discloses “The print buffer unit wherein the print-image creating section creates the print image split into at least two parts; and the print-image displaying section merges the split parts of the print image into one and displays the print image.” **(Tyler, col.9 lines 44-53)** It would have been obvious to one ordinary skilled in the art at

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the time of the invention to combine the teachings of Yoshimura and Wang with the teachings of Tyler since they are both analogous in print control related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Yoshimura and Wang with the teachings of Tyler in order to lower memory requirement for displaying data. **(Tyler, col.2 lines 8-20)**

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura, in view of Applicant Admitted Prior Art hereinafter referred to as AAPA.

Regarding claim 13 dependent on claim 1, Yoshimura does not disclose “The print buffer unit, wherein the print buffer unit is driven by a portable power source.” However AAPA discloses “The print buffer unit, wherein the print buffer unit is driven by a portable power source.” **(AAPA, Specification page 1 lines 15-16)** It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Yoshimura with the teachings of AAPA since they are both analogous in power driven device related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Yoshimura with the teachings of AAPA in order to provide a DC back-up power to the devices.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura and Wang, as modified with Tyler in view of Applicant Admitted Prior Art

hereinafter referred to as AAPA.

Regarding claim 14 dependent on claim 12, Yoshimura and Wang, as modified with Tyler, do not disclose "The print buffer unit, wherein the print buffer unit is driven by a portable power source." However AAPA discloses "The print buffer unit, wherein the print buffer unit is driven by a portable power source." (**AAPA, Specification page 1 lines 15-16**) It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Yoshimura and Wang, as modified with Tyler, with the teachings of AAPA since they are both analogous in power driven device related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Yoshimura and Wang, as modified with Tyler, with the teachings of AAPA in order to provide a DC back-up power to the devices.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

Sawano (US 6819447 B1) a print control apparatus for controlling the operation of a printer having a plurality of dedicated printer engines for a plurality of colors, dividing print data described by a page description language into a plurality of bands page by page, converting the print data of each band to a display list, and further developing the display list to bit map data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARTIN MUSHAMBO whose telephone number is (571)270-3390. The examiner can normally be reached on Monday - Friday / 7:30 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Q. Tieu can be reached on (571) 272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M.M/
12/9/2009

/Benny Q Tieu/
Supervisory Patent Examiner, Art Unit 2625